

CLAIMS

What is claimed is:

1. Coupling device for a SATA drive having a SATA connector, comprising:
 - a second connector having a plurality of connector pins, wherein the SATA connector has a number of connector pins which are less than the number of pins of the second connector and wherein the second connector provides a first and second SATA channel;
 - a coupling unit for coupling the first and the second connector, wherein the coupling unit comprises a multiplexer unit for establishing a coupling of one of the SATA channels with the SATA drive or for establishing a loop back function by coupling the first and second SATA channel.
2. Device as claimed in claim 1, wherein the coupling unit comprises a comparator for comparing a drive identification number provided by the second connector with a predetermined drive number.
3. Device as claimed in claim 2, wherein the second connector is a fibre channel connector.
4. Device as claimed in claim 1, wherein the coupling unit receives control signals from the second connector to either couple a first or a second SATA channel with the SATA drive.
5. Device as in claim 4, wherein the multiplexer configuration comprises a first multiplexer for either coupling the transmit lines of first or second SATA channel with the SATA drive and a second and third multiplexer for either establishing a loop back function or coupling the receiving lines of the first or second SATA channel with the SATA drive.
6. Device as in claim 1, further comprising a voltage regulator for supplying a supply voltage to the components, wherein the supply voltage is received from one of the excess pins of the second connector.

7. Storage system comprising:
 - a plurality of SATA drives, wherein each SATA drive comprises a coupling device for the SATA drive having a SATA connector, a second connector having a plurality of connector pins, wherein the SATA connector has a number of connector pins which are less than the number of pins of the second connector and wherein the second connector provides a first and second SATA channel, and a coupling unit for coupling the first and the second connector, wherein the coupling unit comprises a multiplexer unit for establishing a coupling of one of the SATA channels with the SATA drive or for establishing a loop back function by coupling the first and second SATA channel.
8. System as claimed in claim 7, wherein the second connector is a fibre channel connector.
9. System as claimed in claim 7, further comprising a backplane having a plurality of connectors for coupling for establishing connections with the respective second connectors.
10. System as claimed in claim 9, wherein the backplane comprises a mode select switch for determining a mode of operation coupled with each of the plurality of connectors.
11. System as claimed in claim 7, further comprising at least one controller for controlling the operation of the plurality of SATA drives, wherein the controller comprises a SATA bridge for coupling a server with the system.
12. System as claimed in claim 11, wherein two controllers are provided and wherein each controller may control the first or the second SATA channel of each coupling device.
13. System as claimed in claim 9, wherein each of the plurality of connectors provides information about the drive identification number.

14. System as claimed in claim 7, further comprising a supply voltage unit providing a supply voltage through one of the excess pins of the second connector.